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M **CENTRAL MOLONEY INCORPORATED**
COMPONENTS

An ISO 9001 Company



SHEDMOUNT
WILDLIFE GUARDS

*The **LEADER** in*
WILDLIFE PROTECTION
products for **ELECTRICAL**
DISTRIBUTION EQUIPMENT



Standard Solid Shedmount Guard
Part No. 70380330

SHEDMOUNT WILDLIFE GUARDS ARE THE MOST UNIVERSAL, ECONOMICAL, AND EFFECTIVE DEFENSE AGAINST WILDLIFE INTRUSION AVAILABLE.

CMI Components has supplied the industry with rugged, durable wildlife guards for application on high voltage transformer bushings and arresters for over four decades. Central Moloney is constantly introducing new innovative and patented wildlife guard designs.

SHEDMOUNT PRODUCT LINE — STANDARD VERSION —

Shedmount Wildlife Guard and Mini Shedmount Guard

Product Options: Solid or Meshed Wall Construction

CMI Shedmount Guards fit **all common distribution transformer high voltage primary bushings**. The larger diameter Mini Shedmount is very effective for use on **polymer arresters**.

FEATURES

- Hinged for easy installation on existing equipment without lead disconnection
- Generous number and location of

cable ports make these guards ideal for use on new installations

- Innovative CMI easy-lock latching provides secure, dependable closure that does not require taping

DESIGN

CMI Shedmount Guards are molded with a premium grade, weather resistant, UV stabilized polypropylene copolymer. With more than 30 years in the field and extensive laboratory testing, this material has proven the superior durability and weathering characteristics of this polymer. Also available in meshed wall construction which allows for infrared scanning and deters insect nests.

Heavy wall construction (.075") provides a rigid body which holds its shape for precise latch alignments.

Easy-grip ribs are strategically molded into the body near the latches for simplified installation with HV lineman's gloves – a crucial feature for safe live line installation. Three uniquely designed latches positively lock the guards closed, but are easily opened for removal, making the guards reusable.

Three large cable ports are provided on the Shedmount guard, and four are provided on the Mini Shedmount guard. The auxiliary cable ports provide easy application on transformers with direct connected arresters. Flexible combs at the cable entrances and mounting throat prevent wildlife intrusion around cables and unused ports.



Standard Solid Mini Shedmount Guard
Part No. 70380340



Standard Meshed Shedmount Guard
Part No. 70380486



Standard Meshed Mini Shedmount
Part No. 70380499



Standard Solid Recloser Guard
Part No. 70380463

Recloser Wildlife Guard

Product Options: Solid or Meshed Wall Construction

The CMI Recloser Wildlife Guard has been designed for installation on **Re-closers** and **Regulators** for overhead distribution systems rated 15 to 35 KVA class. The Recloser Guard will accommodate bushing skirt diameters of up to a maximum of seven inches.

FEATURES

- Designed to mount securely between the first and second skirt nearest the high voltage terminal on both the vertical and horizontal terminations
- Consists of two identical halves that snap together with four latches that can be easily released for removal and reuse
- Molded-in, longitudinal recesses provide comfortable grasping points for closing the guard
- Easy infrared scanning capability in the meshed version

DESIGN

CMI Recloser Wildlife Guards are molded with a premium grade, weather resistant, UV stabilized polypropylene copolymer. Also available in meshed wall construction which allows for infrared scanning and deters insect nests.

Standard Meshed Recloser Guard
Part No. 70380483



Standard Solid Handwheel Guard
Part No. 70380436



to cover effectively. This guard is designed with plenty of height to handle the large cable terminations often used on regulators, riser pole bushings and other overhead equipment.

FEATURES

- Extensive meshed cable and bus ports are provided to accommodate a variety of incoming cables as well as side entrance arresters
- Consists of identical halves fastened together with four heavy duty latches
- Innovative design incorporates flat panels the length of the body that provide single hand squeeze points for ease of latching
- Latches can be opened for guard removal and reuse

DESIGN

The CMI Mega Guard is molded with a premium grade, weather resistant, UV stabilized polypropylene copolymer.



Standard Solid Mega Guard
Part No. 70380461

Handwheel Guard

Product Option: Solid Wall Construction

CMI Handwheel Guard is a hinged wildlife guard for use with handwheel tightened bushing terminals. This type of guard is typically furnished by the OEM on new transformers. Optional handwheel hole heights allow the guard to be optimized for minimum clearance between the bottom of the guard and the top of the porcelain skirt.

FEATURES

- Designed for ease of lead installation, the guard is left open to ensure correct cable tightening in the eyebolt terminal. Upon completion, the guard is snapped closed.
- Universal retrofit applications

- A meshed auxiliary cable port is standard, adjacent to the main cable port to accommodate an arrester lead. A slotted hole is available.

DESIGN

The CMI Handwheel Guard Shells (body) are molded with a premium grade, weather resistant, UV stabilized polypropylene copolymer. The handwheel is made of UV stabilized, glass filled, engineering grade thermoplastic polyester.

Mega Guard

Product Option: Solid Wall Construction

The CMI Mega Guard is designed with emphasis toward distribution regulator bushings which are often difficult



Shedmount TI Wildlife Guard

Product Option: Solid Wall Construction

CMI Components responded to an industry need for a wildlife guard that actually works when retrofitting to energized pole mount transformers. The Shedmount TI Guard was designed especially for (but not limited to) distribution transformer primary bushings, and it offers the ultimate in safe and easy installation on live equipment. It can also be used on all common distribution class transformer bushings and arresters and other similarly sized types of bushings.

FEATURES

- Unique external closure spring and generous cable opening, enables the guard to be **installed very easily with either a shotgun stick or hotstick**
- **Patented design** allows the guard to be cocked open before installation

- Universal fit handle designed to be grasped by the clasp of a shotgun stock
- Notches in the handle opening allow the shotgun stick to be used from a wide range of angles. The handle also accommodates a slip fit adapter for use with a standard hotstick fitting.

DESIGN

Molded with premium grade, track resistant, UV stabilized polypropylene copolymer for excellent durability, even in harsh environments. This material has an excellent field history.



Standard Solid Shedmount TI Guard Part No. 70380473
To order the Hotstick Adaptor reference Part No. 70380410



Arrester Bracket Wildlife Guard

(Commonly referred to as the A.B. Cap)

Product Option: Solid Wall Construction

The CMI A.B. Cap effectively reduces outages caused by wildlife perched on transformer mounted polymer style arrester mounting bracket, making contact with energized conductor. This cap effectively covers the mounting bolt and end of the metal mounting bracket with high dielectric material to prevent flashover.

FEATURES

- Effective, cost efficient means of insulating wildlife from ground

potential at the mounting of the polymer arrester bracket to the metal transformer mounting bracket

- Universal design ***fits all common brands*** of polymer distribution class arresters
- ***Easy snap fit*** installation – no tape or tie wraps required
- Rounded surface serves as a perch deterrent
- Provides flashover protection up to 21KV

DESIGN

Molded with premium grade, track resistant, UV stabilized polypropylene copolymer for excellent durability, even in harsh environments.

Standard Solid A.B. Cap
Part No. 70380349



Shedlock™ Wildlife Guard

Product Option: Thermoplastic Elastomer Solid Wall Construction

The CMI Shedlock™ Universal Guard is a funnel type guard typically applied on new installations of overhead transformers and other overhead equipment where tank mounted arresters are not utilized. They work best where a single entrance lead feeds the primary bushing.

FEATURES

- State-of-the-art material and a unique patented body design that locks onto the top shed of a wide range of porcelain bushing sizes
- Designed with locking tabs and pleats that provide a firm attachment to the top shed of most bushings
- The neck of the guard comes standard with a .22-inch entrance hole for use with small uninsulated leads. For larger cable sizes and insulated cables, the **tapered neck can be cut to achieve an interference fit with the cable**. Graduated ribs on the guard serve as reference points for cutting.

DESIGN

The CMI Shedlock™ Universal Guard is molded from a unique blend of materials formulated for the ultimate in weathering resistance and dielectric performance. This highly engineered TPE (Thermoplastic Elastomer) is designed for an outdoor life expectancy of twenty years minimum.



INTRODUCING THE CMI COMPONENTS

FLAMAGUARD™

– FLAME RETARDANT – SHEDMOUNT WILDLIFE GUARD PRODUCT LINE

Property damage triggered by electrical failures in the transformer connections have become a hot topic in recent years. With this in mind, some utilities have identified a need for flame retardant wildlife guards in special applications. Central Moloney, Inc. Components has developed its **FLAMAGUARD™** line of wildlife guards that addresses this need.



The **FLAMAGUARD™** product line includes:

FLAMAGUARD Shedmount Wildlife Guard and Mini Shedmount Guard

*Product Option: Flame Retardant
Molding Compound in Solid or Meshed
Wall Construction*

FR Solid Shedmount Guard
Part No. 70380333



FR Meshed Shedmount Guard
Part No. 70380489



FR Solid Mini Shedmount Guard
Part No. 70380341



FR Meshed Mini Shedmount Guard
Part No. 70380464



FLAMAGUARD Recloser Wildlife Guard

Product Option: Flame Retardant
Molding Compound in Solid or Meshed
Wall Construction

FR Solid Recloser Guard
Part No. 70380459



FLAMAGUARD Mega Guard

Product Option: Flame Retardant
Molding Compound in Solid Wall
Construction

FR Solid Mega Guard
Part No. 70380457



FLAMAGUARD Arrester Bracket Wildlife Guard

(Commonly referred to as the A.B. Cap)

Product Option: Flame Retardant
Molding Compound in Solid Wall
Construction

FR Solid A. B. Cap
Part No. 70380464



FR Meshed Recloser Guard
Part No. 70380496



FLAMAGUARD Shedmount TI Wildlife Guard

Product Option: Flame Retardant
Molding Compound in Solid Wall
Construction

FR Solid Shedmount TI Wildlife Guard
Part No. 70380479



FLAMAGUARD Handwheel Guard

Product Option: Flame Retardant
Molding Compound in Solid Wall
Construction

FR Solid Handwheel Guard
Part No. 70380437



TESTING

The following tests have been conducted on production guards to verify electrical apparatus performance up to 25 kV Class (15.0KV line to ground).



Lightning Impulse Withstand

When tested in accordance with IEEE Std. 4 – 2013, each guard withstood three positive and three negative 125 kV BIL impulse waves without disruptive discharge or flashover.

Dry Withstand – Exterior Surface Grounded

The entire exterior surface of the guard to within 2" of the energized conductor was grounded with copper mesh. A voltage of 18 kV (20% greater than maximum rated line to ground) was applied to the exposed conductor and held for one minute. No electrical flashovers or punctures occurred.

Dry Power Frequency Flashover

The flashover value of the base test fixture (without guard installed) was determined by averaging five consecutive flashover tests. This value was determined to be 75 kV. With the guards installed, the average flashover value was 76 kV (101% of the base value).

Wet Withstand – Exterior Surface Grounded

Precipitation conditions were established in accordance with IEEE Std. 4 – 2013, 11.2 Table 5 "Previous Practice in USA."

The entire exterior surface of the guard within 2" of the energized conductor was grounded with copper mesh. A voltage of 18 kV (20% greater than maximum rated line to ground) was applied to the exposed conductor

and held for one minute. No electrical flashovers or punctures occurred.

Wet Power Frequency Flashover

Precipitation conditions were established in accordance with IEEE Std. 4 – 2013, 11.2 Table 5 "Previous Practice in USA."

The flashover value of the base test fixture (without guard installed) was determined by averaging five consecutive flashover tests. This value was determined to be 55 kV. With the guards installed, the average flashover value was 52 kV (94% of the base value).

Radio Influence Voltage

The RIV value of the base test fixture (without guard installed) was less than 50 microvolts. With the guard installed, the RIV value was still less than 50 microvolts.

Cold Temperature

Guards were placed in an environmental chamber for testing. The guards were cooled to 0°C and -40°C. At both temperatures, the guards could consistently withstand 2.5 ft.-lbs. of impact energy. The lowest impact energy to produce dislodgement was 2.8 ft.-lbs. applied near the top latches. No damage occurred at 0°C. At -40°C, a few fingers around the bottom opening were sheared off.

Dielectric Constant

Tested in accordance with ASTM D 150, this dielectric constant (100 kHz) of the materials is 2.10 – 2.15.

Dielectric Strength

Tested in accordance with ASTM D 149, the dielectric strength of the material is 22 – 23 kV/mm.

Ultraviolet Aging

The test samples consisted of two 1" x 5" sections removed from standard production guards. Testing was conducted on a Q-Trac natural sunlight concentrator at the Q-Panel Weathering Research facility in Buckeye, Arizona. Exposure time was 6 months (06/02 through 12/02), which approximates 8-10 years of typical outdoor exposure or 4-5 years of severe outdoor exposure. A nightly water spray cycle was included to simulate the effect of dew and rainfall.

Samples returned at the conclusion of the test were still in good condition. Functionally, the material was still completely intact and flexible with no cracking or embrittlement. The cosmetic appearance of the samples also remained good, with only very minor surface chalking as evidence of the exposure.

In addition, material samples have passed 1000 hours QUV (per ASTM G154, appendix X2, Table X2.1, cycle 1) with no change in appearance or properties.

Retention Testing

While installed on the test fixture with the cable opening oriented for maximum wind exposure, the guards remained properly installed when exposed to a constant wind velocity of 85 mph.



FLAMA GUARD™

The **FLAMAGUARD™** line of wildlife guards has the added benefit of being flame retardant. Specifically, the FLAMAGUARD line meets the IEEE Standard 1656-2010:

- Section 5.9.1 50 W Vertical Flame Test – with a V-0 flammability rating classification
- Section 5.9.2 50 W Horizontal Flame Test – with HB and HB40 ratings

The IEEE Standard 1656-2010 is the IEEE Guide for Testing the Electrical, Mechanical, and Durability Performance of Wildlife Protective Devices on Overhead Power Distribution Systems Rated up to 38 kV.

We are ISO 9001 Certified!

CMI Components is proud to be awarded ISO 9001 certification, an internationally recognized standard that ensures our products and services meet the needs of our customers through an effective quality management system.





You can count on **Central Moloney, Inc. Components** to help keep your production line running smoothly because we maintain a large inventory of our most frequently shipped items. Our 80,000 square foot facility is located in Pine Bluff, Arkansas, in the geographical center of the United States. We can even ship urgent orders overnight by express courier service, or if required, we are minutes away from Little Rock's airport to expedite a shipment for emergency restoration efforts.



**CENTRAL MOLONEY INCORPORATED
COMPONENTS**

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ABOUT US

Central Moloney, Inc. Components is a leading manufacturing company of electrical distribution components headquartered in Pine Bluff, Arkansas. Since its inception in 1970, Components has been constantly searching for new ways to improve the performance and reliability of our products. Innovation, design quality, flexibility and delivery are all a part of the continuing story of Components.

Product in stock and available for immediate shipment worldwide!

CALL TODAY to get a quote from your local CMI sales agent!

